

**REMARKS**

Claims 1-28 were pending in the patent application. Claims 5-28 have been withdrawn from consideration at this time. In the Office Action, the Examiner has objected to the Claims 3 and 4; and has rejected Claims 1-4 under 35 USC 112 as indefinite. Applicants have amended the language of Claims 1, 3, and 4 to address the Examiner's concerns. Applicants believe that the amendments address the objections and 112 rejections. The Examiner has also rejected Claim 1 under 35 USC 103 as unpatentable over Michaud. For the reasons set forth below, Applicants believe that the claims, as amended, are patentable over the cited art.

The present invention teaches and claims a method for managing operational risk and return of a production infrastructure with respect to a current portfolio of service-level agreements (SLAs). The method comprises the steps of calculating an efficient frontier (i.e., optimal level) for an optimal portfolio of SLAs having the desired levels of risk and return, determining the actual risk and return of the current portfolio of SLAs, comparing the desired to the actual risk and return, and implementing

CH919990038

-17-

corrective action on the current portfolio of SLAs or on the production infrastructure based on the comparison. Risk is dynamic, based on the SLAs guarantees and the ability of the service provider to utilize the production infrastructure to meet those guarantees. Risk must be characterized in monetary terms in order to assess the impact of meeting or missing guarantees on the return to the service provider.

The Michaud patent is directed to a method for evaluating a portfolio of financial investments for consistency with a specified risk objective. In the Michaud patent, the term "risk objective" is used, consistent with its meaning in the financial investments art, essentially to denote the willingness of an investor to have their money invested in investments that have no guarantees, in the hopes of making more money, faster. The "risk" under Michaud is a measure of that investor willingness. Investments and portfolios of investments are then compiled which are consistent with that risk willingness. Each investment will have a pre-defined risk level. "Risk" under Michaud is not dynamic and has no relationship to the return for the investment provider, since the investment provider does not guarantee the returns.

CH919990038

-18-

In contrast, in service level agreements, there are service level guarantees which the service provider must honor. When service level guarantees are not met, there are penalties which affect the return. As is taught by the present application on page 11, the SLA provider must be able to quantify risk in monetary terms in order to appropriately evaluate the portfolio and assess return.

Evaluating investment portfolio returns at a specified risk level for the Michaud patent simply means evaluating investments which have predefined risk levels. Under Michaud "risk" has no monetary effect on the evaluation. In contrast, evaluating risk and return for portfolios of SLAs under the present invention requires assessing the monetary effect of the risk, and factoring it into the return assessment and into the corrective action. Once corrective action is taken, the present invention re-assesses risk and return, assuming that the corrective action will affect one or both. For example, the risk of not meeting service level guarantees will be lowered if network capacity is increased. However, increasing network capacity necessarily will affect the return, since money must be spent to expand the network.

In light of the vast difference in the use and meaning of "risk", Applicants respectfully disagree with the

CH919990038

-19-

examiner with regard to the Michaud failure to teach that the portfolios pertain to SLAs. It is not simply a difference in intended use which distinguishes the inventions. Rather, the methods differ since the Michaud method evaluates portfolios of investment options which are in pre-defined risk levels, while the present invention dynamically calculates risk level as part of portfolio evaluation. Amendments to the language of the independent claim reflect the fact that there are flexible/dynamic risks and returns for the service provider.

Applicants believe that the claims, as amended, are patentable over the Michaud patent. The Michaud patent does not teach or suggest a method for managing operational risk and return of a production infrastructure with respect to a current portfolio of service-level agreements offered by a service provider. Rather, Michaud teaches evaluating a portfolio of investments with fixed, pre-defined risk values. Further, Michaud neither teaches nor suggests calculating an efficient frontier that identifies efficient portfolios of SLAs each having a desired level of risk and return for the service provider using inputs comprising at least one of characteristics of the production infrastructure, traffic characteristics, QoS

CH919990038

-20-

characteristics, and the price of each class of SLAs. Rather, Michaud defines a mean variance efficient frontier based on return levels and a standard deviation for fixed pre-specified risk levels. Similarly, Michaud neither teaches nor suggests a step of determining the performance of the current portfolio of SLAs using a portfolio evaluator means and inputs which characterize the actual level of risk and return for the service provider under the current portfolio. In addition, Michaud neither teaches nor suggests evaluating performance by comparing the actual level of risk and return for the current portfolio and the efficient portfolios with the desired level of risk and return. While Michaud may compare returns, Michaud does so assuming fixed, pre-defined risk levels. Michaud does not compare dynamic risk values in monetary terms and does not compare returns which are risk-dependent. Finally, Michaud provides no teachings related to implementing corrective action to dynamically adjust the actual risk and return for the service provider based on the desired risk and return. Michaud may replace portfolio investments with different investments having the same fixed, pre-defined risk level, but Michaud does not change the risk level.

CH919990038

-21-

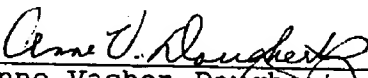
It is well established that, in order to set forth a *prima facie* case of obviousness, the cited references must teach or suggest each of the claim features (*In re Wilson*, 424 F. 2d 1382, 165 U.S.P.Q. 494 (C.C.P.A. 1970)). Since the Michaud patent does not teach the claimed steps, as outlined above, it cannot be maintained that a *prima facie* case of obviousness has been established.

Based on the foregoing amendments and remarks, Applicants respectfully request entry of the amendments, reconsideration and withdrawal of the objections and rejections, and issuance of the claims.

Respectfully submitted,

K. Cieliebak, et al

By:

  
Anne Vachon Dougherty  
Registration No. 30,374  
Tel. (914) 962-5910

CH919990038

-22-